

**Global Solar Radiation on a Horizontal Surface**  
**Hourly Integrated and Daily Totals**  
**Watt-Hours per Square Meter**  
**Bethune-Cookman College - November 1999**

Field: GHI

Hour Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	0	0	6	75	217	486	581	643	479	322	163	138	62	5	0	0	0	0	0	0	3178
2	0	0	0	0	0	0	5	151	342	514	432	462	417	586	463	324	152	12	0	0	0	0	0	0	3860
3	0	0	0	0	0	0	5	143	363	554	699	787	799	728	584	381	159	11	0	0	0	0	0	0	5213
4	0	0	0	0	0	0	7	135	335	480	649	751	753	683	466	259	74	6	0	0	0	0	0	0	4598
5	0	0	0	0	0	0	3	55	135	337	240	663	526	636	466	335	91	11	0	0	0	0	0	0	3498
6	0	0	0	0	0	0	2	72	122	273	427	513	727	611	446	338	135	10	0	0	0	0	0	0	3674
7	0	0	0	0	0	0	6	117	329	508	655	742	746	672	532	343	135	8	0	0	0	0	0	0	4794
8	0	0	0	0	0	0	6	115	311	489	612	721	723	652	521	332	128	8	0	0	0	0	0	0	4617
9	0	0	0	0	0	0	3	109	301	484	566	336	236	419	150	150	117	6	0	0	0	0	0	0	2879
10	0	0	0	0	0	0	4	114	286	307	516	706	708	638	504	317	116	6	0	0	0	0	0	0	4222
11	0	0	0	0	0	0	4	88	295	501	620	717	677	638	508	323	123	5	0	0	0	0	0	0	4499
12	0	0	0	0	0	0	1	82	267	457	605	637	264	445	366	226	68	4	0	0	0	0	0	0	3422
13	0	0	0	0	0	0	1	17	69	281	546	562	337	214	213	168	63	4	0	0	0	0	0	0	2474
14	0	0	0	0	0	0	3	88	288	351	599	683	701	514	269	272	111	4	0	0	0	0	0	0	3881
15	0	0	0	0	0	0	2	91	278	460	594	675	687	609	467	281	105	5	0	0	0	0	0	0	4254
16	0	0	0	0	0	0	2	94	284	468	611	698	710	638	502	314	116	5	0	0	0	0	0	0	4443
17	0	0	0	0	0	0	1	63	232	407	522	481	530	418	478	295	62	2	0	0	0	0	0	0	3492
18	0	0	0	0	0	0	1	78	131	223	178	337	410	529	488	314	96	4	0	0	0	0	0	0	2789
19	0	0	0	0	0	0	2	49	152	288	503	546	697	609	476	301	85	3	0	0	0	0	0	0	3711
20	0	0	0	0	0	0	1	93	245	306	541	579	547	352	319	164	49	2	0	0	0	0	0	0	3198
21	0	0	0	0	0	0	1	35	300	383	591	469	483	218	163	141	32	1	0	0	0	0	0	0	2818
22	0	0	0	0	0	0	1	31	235	426	577	652	665	600	413	245	85	4	0	0	0	0	0	0	3933
23	0	0	0	0	0	0	0	32	112	218	392	495	661	409	394	287	137	5	0	0	0	0	0	0	3141
24	0	0	0	0	0	0	0	13	180	333	187	384	204	373	384	189	38	3	0	0	0	0	0	0	2289
25	0	0	0	0	0	0	0	62	242	407	497	627	563	596	298	231	99	2	0	0	0	0	0	0	3623
26	0	0	0	0	0	0	1	53	203	435	494	563	588	559	351	267	98	2	0	0	0	0	0	0	3613
27	0	0	0	0	0	0	0	67	259	446	596	681	695	621	491	312	113	4	0	0	0	0	0	0	4284
28	0	0	0	0	0	0	0	74	255	430	566	645	662	594	469	296	105	3	0	0	0	0	0	0	4100
29	0	0	0	0	0	0	0	69	238	415	558	631	647	594	464	285	101	2	0	0	0	0	0	0	4002
30	0	0	0	0	0	0	0	65	230	362	499	637	631	569	437	287	120	5	0	0	0	0	0	0	3843
Avg	0	0	0	0	0	0	2	78	241	401	522	601	582	535	408	270	99	5	0	0	0	0	0	0	3745
S D	0	0	0	0	0	0	2	34	74	90	126	119	160	134	116	65	32	3	0	0	0	0	0	0	692
S/A	0	0	0	0	0	0	0.91	0.44	0.31	0.22	0.24	0.2	0.28	0.25	0.28	0.24	0.32	0.56	0	0	0	0	0	0	0.18
Min	0	0	0	0	0	0	0	13	69	218	178	336	204	214	150	138	32	1	0	0	0	0	0	0	2289
Max	0	0	0	0	0	0	7	151	363	554	699	787	799	728	584	381	159	12	0	0	0	0	0	0	5213

Daylight Data Recovery: 0% missing; 0% exceed the 15% QC threshold -- 3862 total daylight 5-minute measurements.

Note: Fractional values that do not appear in the hour columns are included in the calculation for daily values.

Data and Flag	Hour Column	Day Column
<value>*	20% < Missing < 100%	10% < Missing < 100%
<value>?	20% < Fail QC < 100%	10% < Fail QC < 100%
<blank>*	100% Missing	100% Missing
<blank>?	100% Fail QC	100% Fail QC

Station:	BC
Latitude:	29.18° N
Longitude:	81.02° W
Elevation:	20 Meters AMSL
Time Zone:	-5

Instrument:	PSP
Calibration Constant:	8.67 uV/Wm-2
Serial Number:	13434F3
Calibration Date:	5/18/98

**Direct Normal Solar Radiation**  
**Hourly Integrated and Daily Totals**  
**Watt-Hours per Square Meter**  
**Bethune-Cookman College - November 1999**

Field: DNI

Hour Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	0	0	51	41	56	50	66	63	57	33	6	5	5	9	0	0	0	0	0	0	441
2	0	0	0	0	0	0	5	65	43	31	43	49	37	37	41	22	16	12	0	0	0	0	0	0	400
3	0	0	0	0	0	0	15	29	35	27	24	32	27	28	34	17	11	13	0	0	0	0	0	0	293
4	0	0	0	0	0	0	13	27	31	38	30	33	30	32	45	32	16	10	0	0	0	0	0	0	338
5	0	0	0	0	0	0	7	12	5	46	14	32	35	36	36	46	18	12	0	0	0	0	0	0	298
6	0	0	0	0	0	0	5	21	24	31	27	35	34	38	41	25	20	19	0	0	0	0	0	0	320
7	0	0	0	0	0	0	42	15	32	21	25	34	33	32	34	25	16	24	0	0	0	0	0	0	334
8	0	0	0	0	0	0	15	27	29	23	31	40	35	37	39	34	17	34	0	0	0	0	0	0	359
9	0	0	0	0	0	0	11	36	33	26	38	28	7	45	12	16	23	12	0	0	0	0	0	0	286
10	0	0	0	0	0	0	16	69	49	36	34	37	39	38	35	38	23	16	0	0	0	0	0	0	427
11	0	0	0	0	0	0	9	7	23	24	24	40	37	36	37	28	32	17	0	0	0	0	0	0	314
12	0	0	0	0	0	0	7	40	40	31	32	46	9	50	43	32	16	5	0	0	0	0	0	0	351
13	0	0	0	0	0	0	12	5	6	32	55	50	30	10	12	11	10	6	0	0	0	0	0	0	240
14	0	0	0	0	0	0	6	46	55	31	29	39	44	46	32	31	28	19	0	0	0	0	0	0	405
15	0	0	0	0	0	0	6	47	38	32	31	38	41	41	42	36	32	15	0	0	0	0	0	0	401
16	0	0	0	0	0	0	7	39	33	28	28	34	38	36	34	29	20	19	0	0	0	0	0	0	345
17	0	0	0	0	0	0	6	25	40	46	49	57	47	45	44	48	11	14	0	0	0	0	0	0	433
18	0	0	0	0	0	0	5	34	18	19	10	16	18	34	36	40	26	34	0	0	0	0	0	0	290
19	0	0	0	0	0	0	49	26	20	32	37	49	47	40	37	36	21	876	0	0	0	0	0	0	1270
20	0	0	0	0	0	0	2	48	47	50	49	43	50	32	27	22	11	8	0	0	0	0	0	0	389
21	0	0	0	0	0	0	2	5	60	56	44	30	35	16	12	17	9	3	0	0	0	0	0	0	289
22	0	0	0	0	0	0	4	91	104	16	40	32	39	38	43	55	30	10	0	0	0	0	0	0	501
23	0	0	0	0	0	0	1	13	15	14	34	40	42	41	43	38	46	20	0	0	0	0	0	0	347
24	0	0	0	0	0	0	7	5	29	35	13	16	19	85	43	24	9	3	0	0	0	0	0	0	287
25	0	0	0	0	0	0	13	11	52	48	51	37	52	41	26	39	31	13	0	0	0	0	0	0	413
26	0	0	0	0	0	0	0	28	36	39	49	34	55	44	39	45	25	20	0	0	0	0	0	0	414
27	0	0	0	0	0	0	0	41	44	30	32	29	45	39	31	33	25	14	0	0	0	0	0	0	362
28	0	0	0	0	0	0	0	53	40	30	34	29	41	37	32	34	27	18	0	0	0	0	0	0	374
29	0	0	0	0	0	0	0	32	13	28	39	36	44	42	32	42	27	14	0	0	0	0	0	0	350
30	0	0	0	0	0	0	0	43	49	45	41	41	50	49	45	44	40	13	0	0	0	0	0	0	460
Avg	0	0	0	0	0	0	10	33	37	33	35	37	37	39	34	31	21	43	0	0	0	0	0	0	391
S D	0	0	0	0	0	0	13	20	19	10	12	10	12	12	10	11	9	155	0	0	0	0	0	0	174
S/A	0	0	0	0	0	0	1.25	0.61	0.52	0.31	0.35	0.27	0.32	0.31	0.31	0.36	0.45	3.57	0	0	0	0	0	0	0.44
Min	0	0	0	0	0	0	0	5	5	14	10	16	7	10	6	5	5	3	0	0	0	0	0	0	240
Max	0	0	0	0	0	0	51	91	104	56	66	63	57	85	45	55	46	876	0	0	0	0	0	0	1270

Daylight Data Recovery: 0% missing; 0% exceed the 15% QC threshold -- 156076 total daylight 5-minute measurements.

Note: Fractional values that do not appear in the hour columns are included in the calculation for daily values.

Data and Flag	Hour Column	Day Column
<value>*	20% < Missing < 100%	10% < Missing < 100%
<value>?	20% < Fail QC < 100%	10% < Fail QC < 100%
<blank>*	100% Missing	100% Missing
<blank>?	100% Fail QC	100% Fail QC

Station: BC  
Latitude: 29.18° N  
Longitude: 81.02° W  
Elevation: 20 Meters AMSL  
Time Zone: -5

Instrument: Estimated DNI  
Calibration Constant: 0.00  
Serial Number: XXXXXXX  
Calibration Date: 1/1/1997

**Diffuse Solar Radiation on a Horizontal Surface (Shadow Band PSP)**  
**Hourly Integrated and Daily Totals**  
**Watt-Hours per Square Meter**  
**Bethune-Cookman College - November 1999**

Field: DHI

Hour Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	0	0	5	67	174	370 ?	478 ?	521 ?	438	300	160	136	61	5	0	0	0	0	0	0	2715
2	0	0	0	0	0	0	5	125 ?	384 ?	445 ?	360	378	354	451 ?	234 ?	294 ?	148	11	0	0	0	0	0	0	3191 ?
3	0	0	0	0	0	0	5	112 ?	?	?	?	?	?	?	?	?	157	11	0	0	0	0	0	0	284 ?
4	0	0	0	0	0	0	7	114	349 ?	402 ?	545 ?	?	?	?	302 ?	203 ?	70	6	0	0	0	0	0	0	1997 ?
5	0	0	0	0	0	0	3	54	133	313	231	374 ?	247 ?	437 ?	340 ?	306 ?	87	10	0	0	0	0	0	0	2535 ?
6	0	0	0	0	0	0	2	68	113	232	332 ?	408 ?	?	470 ?	333 ?	328	131	9	0	0	0	0	0	0	2427 ?
7	0	0	0	0	0	0	6	109	371 ?	?	?	?	?	?	450 ?	335 ?	132	8	0	0	0	0	0	0	1410 ?
8	0	0	0	0	0	0	5	112	294 ?	428 ?	370 ?	?	?	?	462 ?	317	124	7	0	0	0	0	0	0	2120 ?
9	0	0	0	0	0	0	3	104	282 ?	421 ?	450 ?	317	231	291 ?	144	144	113	6	0	0	0	0	0	0	2505
10	0	0	0	0	0	0	4	104	243 ?	242	345 ?	?	?	?	473	302	112	6	0	0	0	0	0	0	1830 ?
11	0	0	0	0	0	0	4	86 ?	310 ?	?	596 ?	?	602 ?	582 ?	462 ?	312	117	5	0	0	0	0	0	0	3075 ?
12	0	0	0	0	0	0	1	76	248	441	?	530 ?	258	413	343	214	64	3	0	0	0	0	0	0	2592
13	0	0	0	0	0	0	1	16	67	265	482 ?	403 ?	316	208	207	164	61	3	0	0	0	0	0	0	2193
14	0	0	0	0	0	0	2	81	252 ?	299	?	?	?	366 ?	231	260	105	4	0	0	0	0	0	0	1602 ?
15	0	0	0	0	0	0	2	85	251 ?	425 ?	?	?	?	548 ?	445	267	98	5	0	0	0	0	0	0	2126 ?
16	0	0	0	0	0	0	2	90	241 ?	399 ?	?	?	?	?	438 ?	299	112	4	0	0	0	0	0	0	1585 ?
17	0	0	0	0	0	0	1	60	178 ?	315 ?	403 ?	417	432 ?	390	324 ?	253 ?	60	2	0	0	0	0	0	0	2835 ?
18	0	0	0	0	0	0	1	73	126	215	172	326	399	425 ?	444 ?	298 ?	90	4	0	0	0	0	0	0	2572
19	0	0	0	0	0	0	1	45	136	253	320 ?	396 ?	?	?	451	288	80	3	0	0	0	0	0	0	1974 ?
20	0	0	0	0	0	0	1	87	175 ?	283	408 ?	459 ?	432 ?	333	284	156	47	2	0	0	0	0	0	0	2667
21	0	0	0	0	0	0	1	35	166 ?	240 ?	508 ?	376 ?	348 ?	169	157	135	31	1	0	0	0	0	0	0	2167 ?
22	0	0	0	0	0	0	0	25	187	330 ?	486 ?	?	586 ?	?	368	213	79	4	0	0	0	0	0	0	2279 ?
23	0	0	0	0	0	0	0	31	107	211	361	374 ?	498 ?	253 ?	372	267	117	4	0	0	0	0	0	0	2596
24	0	0	0	0	0	0	0	12	130	280	179	278 ?	191	324	353	181	36	2	0	0	0	0	0	0	1967
25	0	0	0	0	0	0	0	61	193 ?	364 ?	316 ?	550 ?	441 ?	?	264	217	93	2	0	0	0	0	0	0	2500 ?
26	0	0	0	0	0	0	0	54	176 ?	315 ?	407 ?	445 ?	440 ?	487 ?	253 ?	244	94	1	0	0	0	0	0	0	2914 ?
27	0	0	0	0	0	0	0	62	187 ?	?	?	?	?	?	410 ?	283 ?	108	3	0	0	0	0	0	0	1054 ?
28	0	0	0	0	0	0	0	69	181 ?	386 ?	?	?	?	?	429 ?	270 ?	101	3	0	0	0	0	0	0	1439 ?
29	0	0	0	0	0	0	0	66	145 ?	403 ?	?	?	?	?	429 ?	270	96	2	0	0	0	0	0	0	1411 ?
30	0	0	0	0	0	0	0	61	185 ?	307 ?	395 ?	519 ?	490 ?	475 ?	369 ?	213 ?	113	5	0	0	0	0	0	0	3132 ?
Avg	0	0	0	0	0	0	2	71	206	330	388	416	394	385	342	247	95	5	0	0	0	0	0	0	2190
S D	0	0	0	0	0	0	2	29	79	74	108	76	116	110	100	60	31	3	0	0	0	0	0	0	649
S/A	0	0	0	0	0	0	0.97	0.41	0.39	0.22	0.28	0.18	0.29	0.29	0.29	0.24	0.32	0.58	0	0	0	0	0	0	0.3
Min	0	0	0	0	0	0	0	12	67	211	172	278	191	169	144	135	31	1	0	0	0	0	0	0	284
Max	0	0	0	0	0	0	7	125	384	445	596	550	602	582	473	335	157	11	0	0	0	0	0	0	3191

Daylight Data Recovery: 0% missing; 35% exceed the 15% QC threshold -- 3862 total daylight 5-minute measurements.

Note: Fractional values that do not appear in the hour columns are included in the calculation for daily values.

Data and Flag	Hour Column	Day Column
<value>*	20% < Missing < 100%	10% < Missing < 100%
<value>?	20% < Fail QC < 100%	10% < Fail QC < 100%
<blank>*	100% Missing	100% Missing
<blank>?	100% Fail QC	100% Fail QC

Station: BC  
Latitude: 29.18° N  
Longitude: 81.02° W  
Elevation: 20 Meters AMSL  
Time Zone: -5

Instrument: PSP  
Calibration Constant: 7.60 uV/Wm-2  
Serial Number: 25951F3  
Calibration Date: 5/18/98